
 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: DCA01MA056		Aircraft Registration Number: N935HA	
		Occurrence Date: 08/05/2001		Most Critical Injury: Fatal	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Washington		State DC	Zip Code	Local Time 1740	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer de Havilland		Model/Series Dash 8-100		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p>HISTORY OF FLIGHT</p> <p>On August 5, 2001, about 1740 eastern daylight time (EDT), a US Airways Express/Piedmont employee was fatally struck by the right propeller blades of a US Airways de Havilland Dash 8, N935HA, operating as flight 3340. The airplane was taxiing for departure from Washington Ronald Reagan National Airport (DCA) for White Plains, New York. It was the employee's first day working at DCA and his first day back at work from extended leave.</p> <p>The accident occurred at US Airways Express operations ramp pad F, located north of passenger gate 35A in the north pier of terminal C. The ramp surface was concrete and asphalt. According to the Metropolitan Washington Airports Authority report, "at the time of the accident the ramp was dry, free of debris and showed spots of dried oil and fuel deposits."</p> <p>RAMP AGENT ACTIONS</p> <p>US Airways records indicated that the ramp agent reported to work at 0835 EDT. Another US Airways employee who worked with the ramp agent in the morning and saw him throughout the day said the ramp agent was in good spirits and appeared normal. About 1540 EDT, the ramp agent complained of a headache and received two Advil tablets and a soft drink from the flight attendant of a delayed US Airways airplane, N986HA. The airplane, which was located at ramp pad A, had been delayed by a mechanical problem. The ramp agent rested inside the cabin of this airplane until about 1600 EDT to escape the heat. The flight attendant of N986HA reported that the ramp agent looked tired while on board the airplane. About a half hour later, the captain of N986HA saw the ramp agent lying in the baggage compartment of the airplane with his legs hanging out the door. The captain spoke to the ramp agent but did not receive a response and thought he was napping.</p> <p>About 2 hours after the ramp agent had complained of a headache, US Airways Express flight 3340, containing 3 crew members and 32 passengers, was parked with its engines idling while the ramp agent and a marshaller prepared the area immediately around the airplane for departure. The ramp agent removed the nose landing gear chocks and tossed them to the right side of the airplane. The captain signaled that he was ready to taxi, the marshaller signaled a go-ahead, and the airplane began to move forward. Both the marshaller and the ramp agent were in front of the accident airplane when they noticed that the chocks had landed in the path of the right main landing gear. The marshaller signaled the captain to stop the airplane, but before the captain could shut the engines down, the ramp agent attempted to remove the chocks. As the ramp agent approached the chocks, the marshaller and a coworker yelled at him to stop, but he did not stop and was fatally struck by the right engine's propellers.</p>					
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Narrative (Continued)

PERSONNEL INFORMATION

Prior to the accident, the ramp agent had worked for US Airways Express at Washington Dulles International Airport (IAD) since September 2000. He worked part time, 2 days a week, around propeller-driven airplanes. His training records indicate that he had satisfactorily completed all initial and recurrent training and was also qualified to marshal airplanes. The ramp agent had received two commendations and had no disciplinary actions on his record. His coworkers described him as very safety conscious and a hard worker. They also described his actions on the day of the accident as out of the ordinary for him.

In the summer of 2001, US Airways Express had transferred its operations from IAD to DCA. During the period of transition, US Airways granted its employees 30 days of leave, which the ramp agent had just completed when he returned to work on the day of the accident.

METEOROLOGICAL INFORMATION


The weather at DCA at the time of the accident was reported as follows: winds, 190 degrees at 9 knots; visibility, 5 miles with haze; temperature, 84 degrees F; relative humidity, 70 percent; and heat index, 91 degrees F. All witnesses described the weather as very hot.


MEDICAL INFORMATION


The ramp agent's wife stated that he had a medical problem involving his thyroid. His medical records indicated that, approximately 8 months before the accident, an endocrinologist had diagnosed him with Graves' hyperthyroidism. Hyperthyroidism is known to cause anxiety, insomnia, muscle weakness, elevated heart rate, abnormal heart rhythms, weight loss, and heat intolerance. [See, for example, "Diseases of the Thyroid" in Harrison's Principles of Internal Medicine (McGraw Hill, Inc.).] Impaired mental functioning is common, including a decreased ability to concentrate, decreased memory, and decreased attention span. [See, for example, "Graves' Disease" in Endocrinology (W.B. Saunders Company) and "Metabolic, Physiologic, and Clinical Indexes of Thyroid Function" in Werner and Ingbar's The Thyroid: a Fundamental and Clinical Text, 8th Edition (Lippincott, Williams & Wilkins).] The endocrinologist prescribed methimazole and propranolol to control symptoms of the disease. However, medical records indicate that the ramp agent's thyroid hormone levels, last measured approximately 1 month before the accident, remained markedly elevated.


Approximately 10 days before the accident, the ramp agent was also prescribed a low dose of alprazolam for anxiety and was given a note to return to work with no contraindication to regular work activities. In addition to the common side effects of drowsiness and light-headedness, alprazolam has been shown to impair performance of many cognitive and psychomotor tasks.

Toxicological testing performed by the Federal Aviation Administration (FAA) Civil Aeromedical Institute Toxicology Laboratory for the ramp agent detected propranolol. Alprazolam was not reported on the FAA toxicology evaluation, but the laboratory threshold for reporting is above the normal therapeutic levels for this medication.

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Landing Facility/Approach Information						
Airport Name Ronald Reagan National Airport		Airport ID: DCA	Airport Elevation 16 Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type: Unknown						
Runway Surface Condition: Unknown						
Type Instrument Approach: NONE						
VFR Approach/Landing: None						
Aircraft Information						
Aircraft Manufacturer de Havilland		Model/Series Dash 8-100		Serial Number 142		
Airworthiness Certificate(s): Normal; Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No	Number of Seats: 37	Certified Max Gross Wt. LBS		Number of Engines: 2		
Engine Type: Turbo Prop	Engine Manufacturer: Pratt & Whitney Canada	Model/Series: PEW120/PW100		Rated Power: 1800 HP		
- Aircraft Inspection Information						
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection Hours		Airframe Total Time Hours		
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site? No				
Owner/Operator Information						
Registered Aircraft Owner Piedmont Air Services Inc		Street Address 5443 Airport Terminal Rd				
		City Salisbury	State MD	Zip Code 21804		
Operator of Aircraft Name		Street Address Same as Reg'd Aircraft Owner				
		City	State	Zip Code		
Operator Does Business As:				Operator Designator Code: HNAA		
- Type of U.S. Certificate(s) Held:						
Air Carrier Operating Certificate(s): Flag Carrier/Domestic						
Operating Certificate:			Operator Certificate:			
Regulation Flight Conducted Under: Part 121: Air Carrier						
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger Only						
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First Pilot Information																																																																																				
Name		City		State	Date of Birth																																																																															
On File		On File		On File	Age																																																																															
Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot		Certificate Number:																																																																																
Certificate(s): Airline Transport; Flight Instructor; Commercial																																																																																				
Airplane Rating(s): Multi-engine Land; Single-engine Land																																																																																				
Rotorcraft/Glider/LTA:																																																																																				
Instrument Rating(s): Airplane																																																																																				
Instructor Rating(s):																																																																																				
Type Rating/Endorsement for Accident/Incident Aircraft? Yes				Current Biennial Flight Review?																																																																																
Medical Cert.: Class 1		Medical Cert. Status: Valid Medical--w/ waivers/lim.		Date of Last Medical Exam: 05/2002																																																																																
<table border="1"> <tr> <th rowspan="2">- Flight Time Matrix</th> <th rowspan="2">All A/C</th> <th rowspan="2">This Make and Model</th> <th rowspan="2">Airplane Single Engine</th> <th rowspan="2">Airplane Multi-Engine</th> <th rowspan="2">Night</th> <th colspan="2">Instrument</th> <th rowspan="2">Rotorcraft</th> <th rowspan="2">Glider</th> <th rowspan="2">Lighter Than Air</th> </tr> <tr> <th>Actual</th> <th>Simulated</th> </tr> <tr> <td>Total Time</td> <td>36768</td> <td>10675</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pilot In Command(PIC)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Instructor</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 90 Days</td> <td>158</td> <td>158</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 30 Days</td> <td>46</td> <td>46</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 24 Hours</td> <td>5</td> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air	Actual	Simulated	Total Time	36768	10675									Pilot In Command(PIC)											Instructor											Last 90 Days	158	158									Last 30 Days	46	46									Last 24 Hours	5	5								
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Seatbelt Used? Yes		Shoulder Harness Used? Yes		Toxicology Performed? No																																																																																
				Second Pilot? Yes																																																																																
Flight Plan/Itinerary																																																																																				
Type of Flight Plan Filed: IFR																																																																																				
Departure Point		State	Airport Identifier	Departure Time	Time Zone																																																																															
Same as Accident/Incident Location			DCA		EST																																																																															
Destination		State	Airport Identifier																																																																																	
White Plains		NY	HPN																																																																																	
Type of Clearance: None																																																																																				
Type of Airspace: Unknown																																																																																				
Weather Information																																																																																				
Source of Briefing: Unknown																																																																																				
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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation Ft. MSL	WOF Distance From Accident Site NM	Direction From Accident Site Deg. Mag.
Sky/Lowest Cloud Condition:			Ft. AGL	Condition of Light: Day	
Lowest Ceiling:			Ft. AGL	Visibility: SM	Altimeter: "Hg
Temperature: °C	Dew Point: °C	Wind Direction:		Density Altitude: Ft.	
Wind Speed:	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): Ft.	Visibility (RVV)	SM	Intensity of Precipitation:		
Restrictions to Visibility:					
Type of Precipitation:					
Accident Information					
Aircraft Damage: Minor		Aircraft Fire: None		Aircraft Explosion: None	
Classification: U.S. Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants				1	1
Other Crew					
Passengers				29	29
- TOTAL ABOARD -				32	32
Other Ground	1				1
- GRAND TOTAL -	1			32	33

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Administrative Information		
Investigator-In-Charge (IIC) Lorenda Ward		
Additional Persons Participating in This Accident/Incident Investigation:		
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